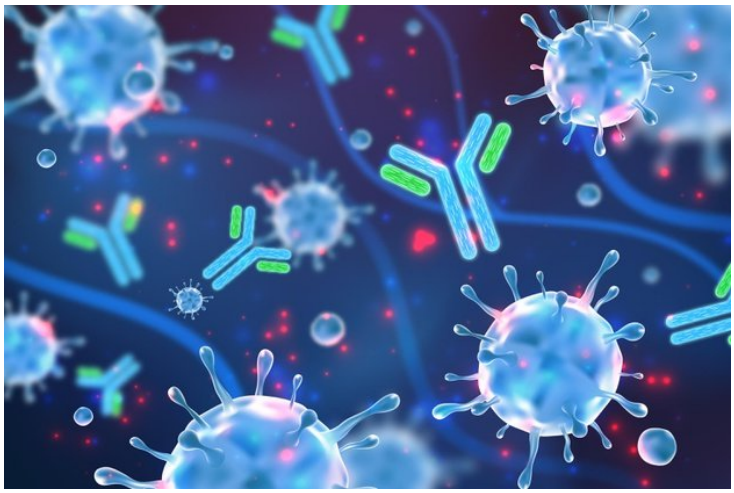
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ASIA EDITION

Singapore's rapidÂ T-cell test tracks immune response to COVID-19

September 2, 2021 | News | By Hithaishi C Bhaskar

Simple T-cell test overviews body's elusive part of the immune response to COVID-19 for better vaccination strategies



Researchers from Duke-NUS Medical School, together with collaborators from the National Centre for Infectious Diseases (NCID) and Singapore General Hospital (SGH), have discovered a simple and rapid method to measure the T-cell immune response to the SARS-CoV-2 virus, which causes COVID-19.

This method is a further boost to scientists who seek to routinely monitor and assess SARS-CoV-2-specific T-cell responses in vaccinated or convalescent individuals, as well as to test and verify the effectiveness of vaccines.

Scientists introduced small fragments of the SARS-CoV-2 spike protein directly into the blood samples of vaccinated or COVID-19 recovered individuals. T cells released chemical signals called cytokines, which are much easier to detect and measure than T cells, and are already being tracked to monitor T-cell activity for the diagnosis of diseases such as tuberculosis.

Building on that, the team showed that the test, called Cytokine Release Assay (CRA), can reliably identify and quantify specific T cells present in the blood samples. Researchers desmonstrated that the CRA test was as sensitive as existing methods used to find and measure T-cell activity.

To bring this discovery to market, Duke-NUS has licensed the assay to Hyris, an innovation-based biotechnology company, which will leverage its Hyris System^{TM} to further develop this rapid SARS-CoV-2 T-cell test for clinical use globally.